



## DEPARTMENT OF DEFENSE

### Office of the Secretary

[Transmittal No. 21-38]

### Arms Sales Notification

**AGENCY:** Defense Security Cooperation Agency, Department of Defense (DoD).

**ACTION:** Arms sales notice.

**SUMMARY:** The Department of Defense is publishing the unclassified text of an arms sales notification.

**FOR FURTHER INFORMATION CONTACT:** Neil Hedlund at [neil.g.hedlund.civ@mail.mil](mailto:neil.g.hedlund.civ@mail.mil) or (703) 697-9214.

**SUPPLEMENTARY INFORMATION:** This 36(b)(1) arms sales notification is published to fulfill the requirements of section 155 of Public Law 104-164 dated July 21, 1996. The following is a copy of a letter to the Speaker of the House of Representatives, Transmittal 21-38 with attached Policy Justification and Sensitivity of Technology.

Dated: February 25, 2022.

**Aaron T. Siegel,**

*Alternate OSD Federal Register Liaison Officer,*

*Department of Defense.*



DEFENSE SECURITY COOPERATION AGENCY  
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ARLINGTON, VA 22202-5408

APR 23 2021

The Honorable Nancy Pelosi  
Speaker of the House  
U.S. House of Representatives  
H-209, The Capitol  
Washington, DC 20515

Dear Madam Speaker:

Pursuant to the reporting requirements of Section 36(b)(1) of the Arms Export Control Act, as amended, we are forwarding herewith Transmittal No. 21-38, concerning the Air Force's proposed Letter(s) of Offer and Acceptance to the Government of Australia for defense articles and services estimated to cost \$1.651 billion. After this letter is delivered to your office, we plan to issue a news release to notify the public of this proposed sale.

Sincerely,

A handwritten signature in black ink, reading "Heidi H. Grant", is positioned above the printed name.

Heidi H. Grant  
Director

Enclosures:

1. Transmittal
2. Policy Justification
3. Sensitivity of Technology

Notice of Proposed Issuance of Letter of Offer  
Pursuant to Section 36(b)(1)  
of the Arms Export Control Act, as amended

(i) Prospective Purchaser: Government of Australia

(ii) Total Estimated Value:

Major Defense Equipment*	\$ .651 billion
Other	<u>\$1.000 billion</u>
TOTAL	\$1.651 billion

(iii) Description and Quantity or Quantities of Articles or Services under consideration for Purchase:

Major Defense Equipment (MDE):

Up to twelve (12) Weapons-Ready MQ-9B, Remotely Piloted Aircraft  
Fifteen (15) Raytheon Multi-Spectral Targeting Systems-D (MTS-D) EO/IR  
Sensors  
Sixteen (16) Lynx AN/APY-8 Synthetic Aperture Radars (SAR) with Ground  
Moving Target Indicator (GTMI)  
Fifteen (15) RIO™ Communication Intelligence Systems  
Thirty-six (36) Embedded Global Positioning System/Inertial Navigations  
Systems (EGI) with Selective Availability Anti-Spoofing Modules  
(SAASMs)  
Six (6) KMU-572 Joint Direct Attack Munitions (JDAM) Tail Kits for 500lb  
Bombs  
Four (4) MXU-650 Airfoil Groups for 500lb Paveway II GBU-12  
Seven (7) MXU-1006 Airfoil Groups for 250lb Paveway II GBU-58  
Four (4) MAU-169 or MAU-209 Computer Control Groups (CCGs) for  
250lb/500lb Paveway II GBU-58/GBU-12  
Six (6) FMU-139 Fuse Systems  
Twelve (12) MK-82 General Purpose 500lb Inert Bombs  
Five (5) High Bandwidth Compact Telemetry Modules (HCTMs)

Non-MDE:

Also included are Honeywell aircraft engines; Certifiable Ground Control  
Stations (CGCSs); mobile Satellite Communication Ground Data Terminals  
(SGDTs); Leonardo SAGE 750 Electronic Surveillance Measures System (ESM);  
GATES/RSO/GRMA; Automatic Information System (AIS); ARC-210 radios;  
AN/DPX-7 IFF transponders; General Dynamics Satellite Communication  
(SATCOM) antennas and Hughes modems with USG encryption; Leonardo/Selex  
SeaSpray 7500 maritime radars; KY-100M security voice terminals; KIV-77  
Mode 4/5 IFF cryptographic appliques; AN/PYQ-10C Simple Key Loaders; U.S.  
Government Certified Encryption Solution; KOR-24A Small Tactical Terminal  
Link-16; Sierra Nevada Electronic Intelligence System; additional secure  
communications and cryptographic equipment; MQ-9B training simulator;  
Hellfire Training Missiles, missile rail kits and integration; M-299 Hellfire Rail  
Launchers; DSU-38 Laser Illuminated Target Detector for GBU-54; MK-81  
General Purpose Bombs 250lb Inert Bombs; aircraft and weapons integration,  
test, and test equipment; additional ground support and test equipment; initial

spare repair parts; repair & return; publications and technical documentation; personnel training and training equipment; U.S. Government and contractor engineering; technical, and logistics support services; and other related elements of logistical and program support.

(iv) Military Department: Air Force (AT-D-SAG)

(v) Prior Related Cases, if any: None

(vi) Sales Commission, Fee, etc. Paid, Offered, or Agreed to be Paid: None

(vii) Sensitivity of Technology Contained in Defense Article or Defense Services Proposed to be Sold: See Attached Annex

(viii) Date Report Delivered to Congress: **April 23, 2021**

\*As defined in Section 47(6) of the Arms Export Control Act.

## POLICY JUSTIFICATION

### Australia – MQ-9B Remotely Piloted Aircraft

The Government of Australia has requested to buy up to twelve (12) Weapons-Ready MQ-9B, Remotely Piloted Aircraft; fifteen (15) Raytheon Multi-Spectral Targeting Systems-D (MTS-D) EO/IR sensors; sixteen (16) Lynx AN/APY-8 Synthetic Aperture Radars (SAR) with Ground Moving Target Indicator (GTMI); fifteen (15) RIO™ Communication Intelligence Systems; thirty-six (36) Embedded Global Positioning System/Inertial Navigations Systems (EGI) with Selective Availability Anti-Spoofing Modules (SAASMs); six (6) KMU-572 Joint Direct Attack Munitions (JDAM) tail kits for 500lb bombs; four (4) MXU-650 Airfoil Groups for 500lb Paveway II GBU-12; seven (7) MXU-1006 Airfoil Groups for 250lb Paveway II GBU-58; four (4) MAU-169 or MAU-209 Computer Control Groups (CCGs) for 250lb/500lb Paveway II GBU-58/GBU-12; six (6) FMU-139 Fuse Systems; twelve (12) MK-82 General Purpose 500lb inert bombs; five (5) High Bandwidth Compact Telemetry Modules (HCTMs). Also included are Honeywell aircraft engines; Certifiable Ground Control Stations (CGCSs); mobile Satellite Communication Ground Data Terminals (SGDTs); Leonardo SAGE 750 Electronic Surveillance Measures System (ESM); GATES/RSO/GRMA; Automatic Information System (AIS); ARC-210 radios; AN/DPX-7 IFF transponders; General Dynamics Satellite Communication (SATCOM) antennas and Hughes modems with USG encryption; Leonardo/Selex SeaSpray 7500 maritime radars; KY-100M security voice terminals; KIV-77 Mode 4/5 IFF cryptographic appliques; AN/PYQ-10C Simple Key Loaders; U.S. Government Certified Encryption Solution; KOR-24A Small Tactical Terminal Link-16; Sierra Nevada Electronic Intelligence System; additional secure communications and cryptographic equipment; MQ-9B training simulator; Hellfire Training Missiles, missile rail kits and integration; M-299 Hellfire Rail Launchers; DSU-38 Laser Illuminated Target Detector for GBU-54; MK-81 General Purpose Bombs 250lb Inert Bombs; aircraft and weapons integration, test, and test equipment; additional ground support and test equipment; initial spare repair parts; repair & return; publications and technical documentation; personnel training and training equipment; U.S. Government and contractor engineering; technical, and logistics support services; and other related elements of logistical and program support. The overall total estimated value is \$1.651 billion.

This proposed sale will support the foreign policy and national security objectives of the United States. Australia is one of our most important allies in the Western Pacific. The strategic location of this political and economic power contributes significantly to ensuring peace and economic stability in the region. It is vital to the U.S. national interest to assist our ally in developing and maintaining a strong and ready self-defense capability.

The proposed sale improves Australia's capability to meet current and future threats by providing timely Intelligence, Surveillance, and Reconnaissance (ISR), target acquisition, locate submarine capabilities, and counter-land and counter-surface sea capabilities for its security and defense. This sale will enhance interoperability between the U.S. Air Force and the Royal Australian Air Force (RAAF). Australia has demonstrated a commitment to modernizing its military and will have no difficulty absorbing this equipment into its armed forces.

The principal contractors will be General Atomic Aeronautical Systems Inc., San Diego, CA; Lockheed Martin Inc., Bethesda, MD; Raytheon Inc., Waltham MA; and Leonardo SpA, Rome, Italy. The purchaser typically requests offsets. Any offset agreement will be defined in negotiations between the purchaser and the contractor(s).

Implementation of this proposed sale will not require the assignment of any additional U.S.

Government or contractor representatives to Australia.

There will be no adverse impact on U.S. defense readiness as a result of this proposed sale.

Notice of Proposed Issuance of Letter of Offer  
Pursuant to Section 36(b)(1)  
of the Arms Export Control Act

Annex  
Item No. vii

(vii) Sensitivity of Technology:

1. The MQ-9B Remotely Piloted Aircraft (RPA) is a weapons-ready aircraft designed for Medium-Altitude Long-Endurance (MALE) Intelligence, Surveillance and Reconnaissance (ISR), Target Acquisition, and Strike Missions. The MQ-9B RPA is not a U.S. Air Force program of record but has close ties to, and builds upon, the proven success of the MQ-9A Reaper. The MQ-9B is a highly modular, easily configurable aircraft that contains the necessary hard points, power, and data connections to accommodate a variety of payloads and munitions to meet multiple missions, including counter-land, counter-sea, and anti-submarine strike operations. The system is designed to be controlled by two operators within a Certifiable Ground Control Station (CGCS). The CGCS is designed to emulate a reconnaissance aircraft cockpit, giving users extensive means to operate both the aircraft and sensors. The MQ-9B is able to operate using a direct Line-of-Sight (LOS) datalink or Beyond Line-of-Sight (BLOS) through satellite communications (SATCOM). The MQ-9B system can be deployed from a single site that supports launch/recovery, mission control, and maintenance. The system also supports remote-split operations where launch/recovery and maintenance occur at a Forward Operating Base (FOB) and mission control is conducted from another location or Main Operating Base (MOB).

2. The Raytheon Multi-Spectral Targeting Systems-D (MTS-D) EO/IR sensors is a multi-spectral Targeting System with Laser Target Designator (LTD). A multi-use Electro Optical (EO)/infrared (IR) sensor provides long-range surveillance, high-altitude target acquisition, tracking, range-finding, and laser designation for all tri-service and NATO laser-guided munitions, with capabilities up to and including high definition color TV, high definition short-wave IR, medium-wave IR, and long-wave IR sensors. The AN/DAS-4 is an evolutionary upgrade to the current AN/DAS-1 system.

3. The Lynx AN/APY-8 Synthetic Aperture Radars (SAR) with Ground Moving Target Indicator (GTMI) System provides all-weather surveillance, tracking, and targeting for military and commercial customers from manned and unmanned vehicles.

4. The L3 Harris RIO™ Communications Intelligence System incorporates radio receivers and flexible digital processing to create the ability to intercept, location, and copy adversary communications. The system is flexible enough that it can detect a wide variety of types of communications. The open design allows the system to be upgraded with new software features as adversary communications change.

5. The Honeywell TPE-331-10-GD Turboprop Engine is used in a variety of airborne platforms, including the MQ-9B.

6. The Ground Control Station (GCS) can be either fixed or mobile. The fixed GCS is enclosed in a customer-specified shelter. It incorporates workstations that allow operators to control and

monitor the aircraft, as well as record and exploit downlinked payload data. The mobile GCS allows operators to perform the same functions and is contained on a mobile trailer. Workstations in either GCS can be tailored to meet customer requirements.

7. The Embedded GPS-INS (EGI) with Selective Availability Anti-Spoofing Module (SAASM) is a self-contained navigation system that provides the following: acceleration, velocity, position, attitude, platform azimuth, magnetic and true heading, altitude, body angular rates, time tags, and coordinated universal time (UTC) synchronized time. SAASM enables the GPS receiver access to the encrypted P(Y) signal providing protection against active spoofing attacks.

8. Leonardo SeaSpray Maritime Multi-Role Patrol Radar is a synthetic aperture X-band radar that provides small-target maritime detection in high seas, maritime search (including submarine periscopes and semi-submersibles), radar imaging of ocean targets, and weather detection and avoidance.

9. The SAGE 750 Electronic Surveillance Measures (ESM) System is a United Kingdom-produced digital electronic intelligence (ELINT) sensor that analyzes the electromagnetic spectrum to map the source of active emissions. Using highly accurate Direction Finding (DF) antennas, SAGE builds target locations and provides situational awareness, advance warning of threats, and the ability to cue other sensors.

10. The C-Band Line-of-Sight (LOS) Ground Data Terminals and Ku-Band SATCOM GA-ASI Transportable Earth Stations (GATES) provide command, control, and data acquisition for the MQ-9B.

11. The ARC-210 UHF/VHF secure radio is a voice communications radio system that can operate in either normal, secure, and/or jam-resistant modes.

12. The KOR-24A Small Tactical Terminal Link-16 is a command, control communications, and intelligence (C3I) system incorporating high-capacity, jam-resistant, digital communication links for exchange of near real-time tactical information, including both data and voice, among air, ground, and sea elements.

13. The AN/DPX-7 is an Identification Friend or Foe (IFF) Transponder used to identify and track aircraft, ships, and some ground forces to reduce friendly fire incidents.

14. The KY-100M is a lightweight terminal for secure voice and data communications. The KY-100M provides wideband/narrowband half-duplex communication. Operating in tactical ground, marine and airborne applications, the KY-100M enables secure communication with a broad range of radio and satellite equipment.

15. The KIV-77 Mode 5 crypto applique computer for IFF is Type 1 certified by the National Security Agency and provides information assurance for both legacy Mode 4 and new Mode 5 IFF equipment. The KIV-77 is used to store the classified keys.

16. The AN/APQ-10C Simple Key Loader is a handheld fill device for securely receiving, storing, and transferring data between cryptographic and communications equipment.

17. The Joint Direct Attack Munitions (JDAM) is a guidance set that converts existing unguided bombs (MK-82, MK-83, MK-84, BLU-109, BLU-110, BLU-111, BLU-117, BLU-126 (Navy) or BLU-129 warhead) into an accurate, adverse weather “smart” munition. The Guidance Set



consists of a Tail Kit, which contains the Inertial Navigation System (INS) and a Global Positioning System (GPS), and a set of Aerosurfaces and an umbilical Cover, which allows the JDAM to improve the accuracy of unguided, general purpose bombs. The Guidance Set, when combined with a warhead and appropriate fuse, forms a JDAM Guided Bomb Unit (GBU). The JDAM weapon can be delivered from modest standoff ranges at high or low altitudes against a variety of land and surface targets during the day or night. After release, JDAM autonomously guides to a target, using the resident GPS-aided INS guidance system. The JDAM is capable of receiving target coordinates via preplanned mission data from the delivery aircraft, by onboard aircraft sensors (i.e., FLIR, Radar, etc.) during captive carry, or from a third-party source via manual or automated aircrew cockpit entry.

The KMU-572 is the guidance set for a GBU-38 (500-pound bomb body) JDAM Tail Kit.

18. The Laser JDAM (GBU-54) is a 500-pound JDAM that incorporates all the capabilities of the JDAM guidance kit and adds a precision laser guidance set. The Guidance Set consists of a Tail Kit, which contains the Inertial Navigation System (INS) and a Global Positioning System (GPS) receiver, a set of Aerosurfaces and an umbilical cover, which allows the JDAM to improve the accuracy of unguided, general purpose bombs. The Laser JDAM (LJDAM) adds the DSU-38/40 sensor, which gives the system a semi-active laser seeker. This allows the weapon to strike targets moving at up to 70 mph.

19. GBU-12/58 Paveway II (PW-II) 500-pound (GBU-12) and 250-pound (GBU-58) are maneuverable, free-fall, laser-guided bombs (LGBs) that guides to reflected laser energy from the desired target. Employment of the LGB is the same as a normal general purpose (GP) warhead, except the semi-active guidance corrects for employment errors inherent in any delivery system. Laser designation for the weapon can be provided by a variety of laser target markers or designators from the air or ground. The Paveway system consists of a laser guidance kit, a computer control group (CCG), a warhead-specific Air Foil Group (AFG) that attach to the nose and tail of MK-81 and MK-82 General Purpose (GP) bombs, and a fuse. The weapon is primarily used for precision bombing against non-hardened targets.

a. The MAU-169 or the MAU-209 are the CCG for the GBU-12 and GBU-58.

b. The MXU-650 is the AFG for the 500-pound GBU-12.

c. MXU-1006/B is the AFG for the 250-pound GBU-58.

20. MK-82 Inert General Purpose (GP) bomb is a 500-pound, free-fall, unguided, low-drag inert weapon used for integration testing. There is no explosive fill.

21. MK-81 Inert GP bomb is a 250-pound inert training ordnance representative in size and weight of an explosive filled bomb to simulate either a free-fall 250-pound bomb or precision guided munition.

22. The Joint Programmable Fuse (JPF) FMU-139 is a multi-delay, multi-arm and proximity sensor compatible with general purpose blast, frag, and hardened-target penetrator weapons. The JPF settings are cockpit selectable in flight when used numerous precision-guided weapons. It can interface with numerous weapons including GBU-12, GBU-58, GBU-54, and GBU-38.

23. The highest level of classification of defense articles, components, and services included in this potential sale is SECRET.

24. If a technologically advanced adversary were to obtain knowledge of the specific hardware and software elements, the information could be used to develop countermeasures that might reduce weapon system effectiveness or be used in the development of a system with similar or advanced capabilities.

25. A determination has been made that the Government of Australia can provide substantially the same degree of protection for the sensitive technology being released as the U.S. Government. This sale is necessary in furtherance of the U.S. foreign policy and national security objectives outlined in the Policy Justification.

26. All defense articles and services listed in this transmittal are authorized for release and export to the Government of Australia.

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